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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,992	09/22/2003	William F. Graham	FA1174USNA	1752
23906 7590 02/28/2007 E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			EXAMINER PENG, KUO LIANG	
			ART UNIT 1712	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/28/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No:

10/668,992

Applicant(s)

GRAHAM ET AL.

Examiner

Kuo-Liang Peng

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1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/15/06 Amendment.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/5/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's election without traverse of the invention of Group III in the response to restriction requirement filed December 15, 2006 is acknowledged.

Now, Claims 9-11 are pending for consideration.

2. Claims 1-8 and 12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse, supra.

Specification

3. The disclosure is objected to because of the following informalities:

In the specification (page 37), Applicants described the results shown in Table 1. However, there is no data to support the results.

In Table 3, it is not clear as to what "CEx 1" refers to.

In Table 3, the average advancing contact angle under the subtitle "Hexadecare" of Ex. 1 (i.e., 1.5) is much lower than that of the comparative example in the SilverMet Basecoat samples. This is contradictory to the statement set forth in the specification (page 39, 1st paragraph).

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano (JP 2003-129003) in view of Brown (US 6 447 919).

Hirano discloses a composition for coating **metal**, which comprises a polymer derived from a **fluorinated monomer**, an **alkoxysilyl containing monomer**, a **non-fluorinated/non-silanized monomers**, and a crosslinker.

([0005]-[0006]) The amounts of these monomers are described in [0015]. The crosslinker can be a **melamine** or a **blocked polyisocyanate**. ([0017]-[0019])

Hirano is silent on the use of a fluorinated urethane compound set forth in the claimed invention. However, Brown teaches the use of a fluorinated urethane in a composition for coating **metal**, etc. where the composition comprises a polymer derived from a **fluorinated monomer**, an **alkoxysilyl containing monomer** and a **non-fluorinated/non-silanized monomer**. The motivation of using the fluorinated

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urethane is to enhance the chemical and mechanical properties of the coating. (col. 7, lines 47-63, col. 14, line 65 to col. 15, line 12, col. 16, lines 16-55, col. 17, lines 23-38, col. 18, lines 48-65, col. 19, lines 34-65 and col. 21, lines 3-9) In light of the benefit mentioned, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate Brown's fluorinated urethane into Hirano's composition with expected success. Although Brown is silent on the claimed amount of the fluorinated urethane, as mentioned above, the presence of the fluorinated urethane can affect the properties of the coating. Therefore, the amount of the fluorinated urethane is a Result-Effective variable. As such, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the fluorinated urethane in whatever amount through routine experimentation in order to afford a coating with desired properties. Especially, Applicants do not show the criticality of said amount. See MPEP 2144.05 (II).

6. Claims 10-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

None of Hirano and Brown, taken alone or in combination, teaches or fairly suggests the claimed fluorinated urethanes.

7. The "X" references cited in the international search report are not relied upon because of the following reasons:

Mitsutani (US 5 780 530/EP 796 904) discloses a first acrylic polyol resin containing alkoxysilyl groups (col. 3, line 26 to col. 4, line 16) and a second acrylic polyol resin containing fluorinated group (col. 4, line 56 to col. 5, line 47).

However, Mitsutani does not teach or fairly suggest a) a polymer derived from a monomer mixture consisting essentially of a fluorinated monomer, a non-fluorinated monomer and a silane functional monomer; and b) a fluorinated urethane compound set forth in the claimed invention.

Rihan (WO 03/027198) discloses a composition comprising a hydroxyl-functional acrylic polymer and a curing agent such as polyisocyanate. ([0007] and [0032]) However, Rihan does not teach or fairly suggest a composition comprising a fluorinated organosilane polymer derived from a monomer which do not contain a silane or a fluorine functionality, a monomer containing a silane functionality and a monomer containing a fluorine functionality; a polyisocyanate or a melamine crosslinker; and a fluorinated urethane compound.

US 2003/0017349 is not relied upon because US 6 447 919 issued to its parent application is applied.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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klp

February 23, 2007


Kuo-Liang Peng
Primary Examiner
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